INDUSTRIAS ELECTRO QUIMICAS S.A.

CERTIFICATE OF ANALYSIS # 20191447

Customer	CCS UK LTD ENGLAND	Date of manufacture: Date of expiry:	14.04.2019 14.04.2021	SHIPPING INFORMATION Date VESSEL Our Invoice # Your P.O. #	 May 29, 2019 CALLAO EXPRESS F001-00004817 47250
Lot #	20190770				
Description	GOLD SEAL ZINC OXIDE			Quantity	24.00000

CHEMICAL CHARACTERISTICS

Element	Specification %	Min	Max	Production Avg
As	0.0001 MAX	< 0.0001	< 0.0001	< 0.0001
Cd	<= 0.001 0	0.0002	0.0002	0.0002
Cl	0.0005 MAX	0.0004	0.0004	0.0004
Cu	<= 0.000 2	< 0.0001	< 0.0001	< 0.0001
Fe	0.0005 MAX	0.0002	0.0002	0.0002
Mn	<= 0.000 1	< 0.0001	< 0.0001	< 0.0001
Ni	0.0001 MAX	< 0.0001	< 0.0001	< 0.0001
ZnO	99.9 MIN	99.9000	99.9000	99.9000
Pb (including PbO)	0.0020 MAX	0.0011	0.0013	0.0012
S	0.0007 MAX	0.0001	0.0001	0.0001
Total Impurities	0.1 MAX	0.1000	0.1000	0.1000

OTHER CHARACTERISTICS

Item	Specification	Min	Max	Production Avg
Surface area BET method (m2/g)	3.5 - 7	4.7000	4.7000	4.7000
Granulometry (through # 325 mesh) (%)	99.9 MIN	99.9810	99.9810	99.9810
Moisture (%) [2]	0.2 MAX	0.0800	0.0800	0.0800
Volatile materials (%) [1]	0.2 MAX	0.1100	0.1100	0.1100
Ignition loss (%) [1]	0.2 MAX	0.1500	0.1500	0.1500
Specific weight (g/cm3)	5.6	5.6000	5.6000	5.6000
pH [1]	7.3 - 7.5	7.4000	7.4000	7.4000
Water Soluble Salts (%) [1]	0.10 MAX	0.0800	0.0800	0.0800
Solubility in HCl (%) [1]	99.9 MIN	99.9570	99.9570	99.9570

[1] According Norm DIN 55908 ("Methods of analyzing zinc oxide pigments")
[2] According Norm ASTM D 280 Method "A"
Complies with USP and European Pharmacopeia

DATE OF CERTIFICATE
May 29, 2019